SELFRIDGE FIELD, BUILDING NO. 567
(Rawinsonde Building)
(BE Maintenance Shop)
(Pesticides Building)
E. Joy Blvd., east of Northwest Gate
Mt. Clemens vicinity
Macomb County
Michigan

HAER No. MI-116-EE

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Department of the Interior
Great Lakes Systems Office
1709 Jackson Street
Omaha, NE 68102-2571

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HISTORIC AMERICAN ENGINEERING RECORD

SELFRIDGE FIELD HAER No. MI-116-EE
BUILDING #567, RAWINSONDE BUILDING
(B.E. Maintenance Shop/Pesticides Building)

Location: East of West Perimeter Road near Northwest Gate
Selfridge Air National Guard Base
Mt. Clemens Vic., Macomb Co., MI

U.S.G.S. Mount Clemens East Quadrangle, Universal Transverse Mercator Coordinates: 17.348300.4718830

Significance: An example of a Rawinsonde Building rarely encountered in Michigan, this structure was used by the Weather Service to support Selfridge's Cold War defense mission and general aviation operations, from the 1950s into the early 1970s, launching transmitters attached to hydrogen-filled balloons to gather weather data.

Description: Building #567 is a compound massed plan flat-roofed concrete block building composed of a 28 foot square northern unit connected by an 8 foot long 6 foot 6 inch wide corridor to an irregular plan unit composed of a two story 17 foot 4 inch square northern bay, and an adjacent single story 11 foot 4 inch square bay that is joined to a 10 foot 8 inch by 6 foot 8 inch large southern bay. All windows in the building are steel frame sash and all display masonry lintels and wooden sills. The masonry roof on the two story unit displays a wide soffit, is shielded by built up roofing and displays an 7 foot 8 inch diameter observation platform with pipe railings on the southern unit and a raised square 5 foot by 7 foot concrete observation platform at the northeast corner of the northern unit. A masonry smoke stack occurs at the northeast corner of the building and the center of the northern unit is broken by a large ventilator hood.

The principal (east) elevation presents an irregular profile. The northern two bays of the square plan unit consists of a steel framed window and a large vehicular entry void with a steel overhead door. The single story masonry corridor to the south is pierced by a steel sash window and single steel pedestrian door that is positioned adjacent to the projecting bay containing the incinerator stack. Recessed above the corridor and incinerator, the second story of the southern two story unit presents a steel sash northeast corner window and an access door reached by a steel pipe ladder placed at the south side of the masonry stack. Like all other elevations, the south elevation presents a purely

functional piercing pattern. The southeast corner of the building is a projecting shed roofed bay whose wall is pierced by a metal vent, while the adjacent two story bays is pierced by a single steel sash window in the first story and a centrally positioned paired steel sash window above. The west elevation is composed of the two story unit that is pierced by a three lighted vertical steel window and six lighted steel window on the first story and a central paired steel window in the second story, while the connecting corridor reveals a single steel sash window, while the southern unit displays a large vehicular entry void, now sealed with a wood framed vinyl siding clad curtain wall, that is the mirror image of the one on the east elevation. The north elevation of the two story unit presents a narrow 3-pane vertical window at its northeast corner and a central paired steel sash window identical to those on the other elevations, while the northern unit is pierced by a large vehicular entry void now sealed by wood frame and plywood that is broken by a circular wall vent and an adjacent 10 lighted vertical steel sash window.

The floor plan reveals that the large single story northern unit housed a "Hydrogen Generating Room" with a storage bay for hydrogen cylinders and an adjacent grill-covered drainage pit that occurred in "spark-free" concrete flooring. These devices were positioned in the northwest corner adjacent to a large wooden sliding door (that is now sealed by plywood) in the north wall. The upper portion of this large room contained balloon guides along the north east and west walls adjacent to the large entry voids. These guides, which have been removed, appear to have been attached to regularly spaced voids that occur in the top row of concrete block below the concrete ceiling vault. The apex of the concrete reinforced pyramid ceiling is pierced by a square void (now sealed by built up roofing). The northeast part of this room has been partitioned off by a frame wall to house an office. The single story covered passage leads south to the square two story unit whose northern bays housed an L-plan workshop with axes 15 feet 4 inches by 9 foot 10 inches, an adjacent office with storage shelves in the southeast corner of the unit, and a toilet in the southwest corner. The second story consisted of a stairwell along the east wall that accessed open office space with a small closet in the northwest corner. (This floor is now off limits

because of pesticide contamination.) A trap door and exterior ladder led to the roof whose observation deck with a concrete curb perimeter that held weather instruments. An 18 inch wide pedestrian roof deck constructed of 2 by 4 inch lumber ran along the south an east perimeters of the roof, connecting exterior ladder adjacent to the door on the east elevation to the small concrete platform on the roof of northeast corner of the hydrogen generating building. The single story unit to the east was a heater room with stack on the east elevation, flanked on the south by the shed roof coal bin.

History: This "Rawinsonde Building," (Radiosonde and Radar Winds Sounding) was erected in 1953 from plans provided by Norman Krecke, a Detroit architect, to the Detroit District Army Corps of Engineers.[1] After it ceased weather support operations, the hydrogen generating equipment and balloon guides were removed to create open functional space and it has supported Base Engineering operations in recent years.

Sources:

Anonymous, Brief History of Selfridge Air Force Base, 1917-1960, unpublished ms., Air Force Historical Research Agency, Maxwell Air Force Base, Alabama, 1960.

Bright, Charles B. (ed.) Historical Dictionary of the U.S. Air Force, Greenwood Press, New York, 1992.

Copy of construction drawing, dated January 15, 1953, Norman Krecke, Architect, Detroit, in possession of Selfridge Base Museum, Mt. Clemens, Michigan. Foundation and First Floor Plans, Sheet 2 of 8 SF 5/307.

Copy of construction drawing, dated June 9, 1954, Norman Krecke, Architect, Detroit, in possession of Selfridge Base Museum, Mt. Clemens, Michigan. Second Floor and Roof Plans, Sheet 3 of 8 SF 5/308.

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[1] Original construction plans on file, Base Museum and Base Civil Engineering

Interview, Major Joe T. Reams, USAFR, Dept of the Air Force, Air Force Historical Research Agency, Maxwell AFB, Alabama, December 5, 1995

Interview, Eric Reeve, Selfridge Environmental Management, October 12, 1995

Interview, Colonel Robert Stone (Ret.), Curator, Selfridge Base Museum, October 13, 1995

Historian: William E. Rutter
Midwest Environmental Consultants, Inc.
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